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of L. D. Bulkley M.D.

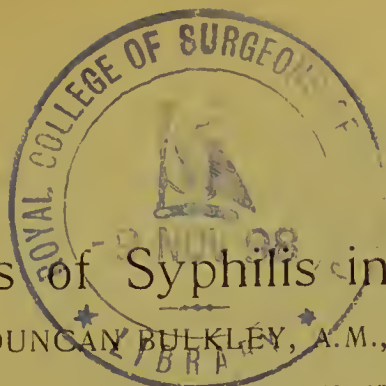
Manifestations of Syphilis in the Mouth.

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THE SKIN DEPARTMENT, RANDALL'S ISLAND; CONSULTING PHYSICIAN
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(Read before the New York Odontological Society, February 15, 1898, and reprinted from the
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Eight years ago I had the honor to address this society upon "the dangers arising from syphilis in the practice of dentistry."* At the kind invitation of your distinguished president I shall try this evening to give a more practical value to the remarks then made by calling your particular attention to the mouth-lesions from which infection can take place.

Syphilis is a protean disease, not only capable of affecting every organ and tissue of the body, but also of imitating to a greater or less degree very many conditions and states depending on quite other causes. It is therefore no easy task to attempt to make perfectly clear its manifestations in the mouth,—for it must be acknowledged at the outset that sometimes the appearances are so *bizarre* and curious that even the most skillful cannot be certain in regard to the nature of a particular lesion. It may be further stated that in order to diagnosticate syphilis surely it is often necessary to know the history, and also to take into consideration very many signs and symptoms; it is not, therefore, always possible to consider and judge from a single lesion, whether it be in the mouth or on the skin, or in any other organ. It will be understood, therefore, in what may follow, that the diagnostic points indicated are but relative and partial, although the attempt will be made to indicate the salient points which may be of practical value.

In order to understand the danger from the manifestations of syphilis in the mouth, and the means of averting it, a few words must be premised in regard to the disease itself.

Syphilis is a specific disease, due to the entrance of a special poison, which multiplies rapidly in the system and can affect every organ and portion of the body. It is by no means necessarily a venereal disease, but is constantly being acquired in perfectly innocent manners, which need not be dwelt upon here, except to state that a number of authentic instances are on record, by reliable observers, where it has been acquired in connection with the practice of dentistry;† it has happened that both the dentist has acquired it from the patient and patients have acquired it through dental operations, from poison which has been conveyed on instruments, or otherwise from one suffering from the disease to another.

**International Dental Journal*, August and September, 1890.

†"Syphilis in the Innocent," by L. Duncan Bulkley, M.D. New York, 1894; pp. 90, 190, 231, 232.

Soon after the entrance of the poison the person becomes syphilitic, and for a period is thoroughly permeated with the poison, so that the blood and certain secretions can again communicate the disease. The exact duration of the contagious period of syphilis has never been determined, although it is known that after a considerable time the danger diminishes greatly, and after some years it is not communicable, even though the patient may have some of the late or tertiary signs of the disease, it may be, even in the mouth. The virulence of the disease is also modified greatly by efficient treatment.

During the first year syphilis is certainly very contagious, and operations about the mouth should be undertaken with the greatest caution. During the second year, as well as during the first, and especially in smokers, there are apt to be mucous patches in the mouth which give off a secretion which is abundantly capable of causing a chancre, should it find a suitable opportunity. With each succeeding year, especially under proper treatment, the danger diminishes, and there are not many instances where infection has taken place after five years, although the disease is capable of hereditary transmission very many years later, showing that the virus does persist even for a long time.

The sources from which syphilitic poison may be received are four, and as all of them may at times relate to the practice of dentistry they may be mentioned, as they were in my former paper. These are: (1) The initial sore or chancre, in or about the mouth; (2) Mucous patches in the mouth or on the lips; (3) Syphilitic ulceration; and (4) The blood.

(1) *The chancre.* This is not very uncommon on the lips, and at the beginning is often thought to be only an innocent abrasion, or "a cold sore." But it will persist and gradually become a well-defined mass, and give off a terribly virulent secretion, often remaining for months, and symptoms of constitutional syphilis will appear. Occasionally a chancre will occur on the tongue, as in the instance of a patient of mine, which I mentioned in my previous paper, where the gentleman had been to his dentist to have a roughened tooth filed off; the dentist who did the work was undoubtedly exposed to the contagion, and without proper cleansing his instruments could have been the means of communicating the disease to others. Chancres are also not very uncommon on the tonsils, and also have been observed on the gums and elsewhere in the mouth.

(2) *Mucous patches.* These are slightly raw surfaces, of various sizes and shapes, which at one time or another are very apt to appear to a greater or less extent in the mouth in almost every case of syphilis. Mucous patches are a most fruitful source of syphilitic infection, and are the lesions against which special care must be exercised. The secretion from them, whether in a fresh state, or dried on instruments, napkins, or any articles, gives rise to a chancre and complete infection of constitutional syphilis.

Mucous patches differ so greatly in appearance and extent that it is difficult to describe them accurately. When newly developed

they are of a redder color than normal mucous membrane, but later may become of a grayish white; elevated a little at first, they may become depressed by the loss of epithelial covering. They may be in oval patches of various sizes, or in streaks, while sometimes it is very difficult to determine their exact extent. They are always superficial lesions, and often do not cause much annoyance, so that the patient may readily attend to all the duties of life, and may go through considerable dental manipulation while having an abundant crop of mucous patches on the tongue, lips, or buccal cavity, as I have frequently known to be the case.

(3) *Syphilitic ulcerations.* These are less likely to be met with in the practice of dentistry, although I have known patients to seek relief for troubles about the teeth when there were syphilitic ulcerations about the mouth which could give rise to contagion. Generally they are so striking and also painful that they would be noticed at once, or the patient would avoid dental work from the pain in them.

(4) *The blood.* During the earlier stages of syphilis the blood is certainly contagious, and if drawn in any operation it could convey the poison in a cut or injury, or if left on instruments or apparatus, and thus conveyed to another. In my former paper I quoted a very striking case where chancre of the gum resulted from the operation of tooth-drawing; the patient was undoubtedly inoculated by means of blood or disease secretions left on an improperly cleansed forceps.

Such being the sources from which infection can come from the mouths of persons who have acquired syphilis, we may briefly consider some of the details in regard to the methods by which the disease is communicated in dentistry, and the methods of avoiding the danger; first, in regard to the dental operator, and second, in regard to protecting patients.

(1) *The dental operator.* Considering the well-recognized contagious character from mucous patches in syphilitic mouths, it is remarkable that there are so few instances on record of the infection of dentists, whose fingers are continually bathed in these secretions. It is undoubtedly due to the great personal care of the hands necessary in the profession. Physicians and surgeons have been much less fortunate, and numberless instances are on record where they have acquired chancres on the fingers from mucous patches. I myself have had over a dozen thus affected under my care.

It is to be remembered that an abrasion of the surface is necessary for infection, so that these and even hang-nails should be carefully guarded against. Illustrations have occurred where even momentary contact of an abraded surface has sufficed to acquire the disease, even where careful cleansing has taken place immediately afterward; too great care cannot therefore be exercised in having the hands free from any raw places through which the poison could gain entrance.

(2) *Guarding patients against infection.* It may seem somewhat out of place to speak to such gentlemen as compose this society

in regard to the simple matters of precaution about to be mentioned. But, as some may not heretofore have fully recognized the dangers arising from the syphilitic mouth, it is best to err on the safe side, and to briefly present the cautions which come to mind from a pretty full knowledge of the subject, and in doing so it will be necessary to repeat some of what was said on a former occasion.

The secretion from mucous patches, and also from the chancre, is very sticky and adherent, and when dried on an article forms a delicate coat, hardly perceptible. Nothing is known in regard to the length of time during which the virus is viable, but from what has occurred in medical practice it is believed that days, weeks, or perhaps months after an instrument or article has become infected it may again give off the poison and communicate the disease.

Simple washing may not be sufficient for proper cleansing, and special care should be exercised if there is reason to believe that there has been particular exposure to syphilitic infection. This can be accomplished by heat and certain disinfectants, antiseptics, or germicides. As in the case of surgery, heat is probably the safest and most convenient disinfectant, and thorough boiling, especially in a slightly alkaline medium, may be considered as an efficient prophylaxis against contagion. I will not take your time in discussing other measures of asepsis, with which all are familiar, but I will only urge that too great thought and care can hardly be expended in perfectly guarding against this poison.

Almost all the articles employed in connection with dentistry could be the means of communicating the disease; for even a blunt plugger which had been in previous contact with a syphilitic lesion, and bearing the poison on its surface, might slip and cause a wound of the soft parts through which the poison on it could be absorbed.

But some instruments would be more likely to be the conveyors of the poison than others, and among these may be mentioned burs and files; they are both more liable to retain the poison in their fine serrations, and also to convey it to the tissues by wounds inflicted. Also the articles connected with polishing the teeth; and I well remember, in times past, more than one dentist polishing my own teeth with pumice stone on a bit of wood, which had apparently been used for former patients. Rubber-dams and wedges, if carelessly employed a second time, could also convey the poison. Napkins would probably be efficiently cleansed by boiling.

I have now endeavored to go briefly over the subject of the manifestations of syphilis in the mouth, and to point out some of the dangers from them to the operator and to other patients, and the methods of avoiding the danger. A few words may be added in regard to the practical recognition of syphilis in the mouth.

First it may be recalled that, as was remarked at the opening of this paper, syphilis is capable of imitating many states or conditions dependent on quite other causes; and there are many alterations of mucous membrane about the mouth other than those of syphilis, with many of which you are undoubtedly familiar. Time and

space would fail in an attempt to give any detailed consideration to these, and I must be content with a few suggestive hints.

Aphthous sores within the mouth will sometimes be strongly suggestive of syphilis, and, indeed, it is not uncommon to find them in the mouths of syphilitic patients, where the stomach derangement has been caused by the treatment given for the syphilis.

Glossitis of various forms and degrees may also exist, and be confounded with syphilitic lesions; the serpiginous form, often called "geographical tongue," will sometimes be very puzzling.

In the mouths of smokers, especially, we often get lesions which much resemble the white mucous patches of late syphilis; this *leucoplakia buccalis* is very apt to come in streaks, and on the sides of the buccal cavity, reaching down to the corners of the mouth. The tongue may also be much affected with this disease.

In addition to these superficial forms of mucous trouble we have epithelioma of the tongue, or buccal cavity, which often simulates syphilis very closely; lupus may also affect the gums.

Abrasions and ulcerations from sharp or irritating teeth will also be found on the tongue, and may be very suggestive of syphilitic disease.

Thus we see that the diagnosis of syphilis in the mouth may not be an easy affair, and it is necessary when any of these many lesions are found to be extremely careful lest the true nature of the trouble be mistaken, and infection occur when least expected, as is usually the case. Hence the necessity of perfect asepsis in connection with dental work.

One word in regard to the connection of the physician with the subject under discussion. I believe it to be the duty of the physician treating syphilis to acquaint the patient with the dangers to which he is exposing others, and if possible to prevent dental work being done, certainly during the early, contagious period of the disease. Should necessity arise for the aid of the dentist, the patient should frankly acquaint him with his condition, and the dentist take suitable precautions. Should doubt arise, the dentist should consult the physician in charge of the case.

If the physician in charge of a case of syphilis in the contagious period should have occasion to send a patient for dental treatment, he should acquaint the dentist with the dangers involved, just as he would inform the obstetrician, surgeon, or any other medical man who might be exposed thereby.

In conclusion, I beg to say that I have not wished to excite unnecessary alarm in connection with the subject under consideration; but having seen a great number of cases of syphilis innocently acquired, and knowing that in a large share of the cases the sources of contagion came from the manifestations of syphilis in the mouth, I feel that I cannot too strongly emphasize the danger, and urge the most careful attention whenever there is danger that the disease may be communicated from this source of contagion.

